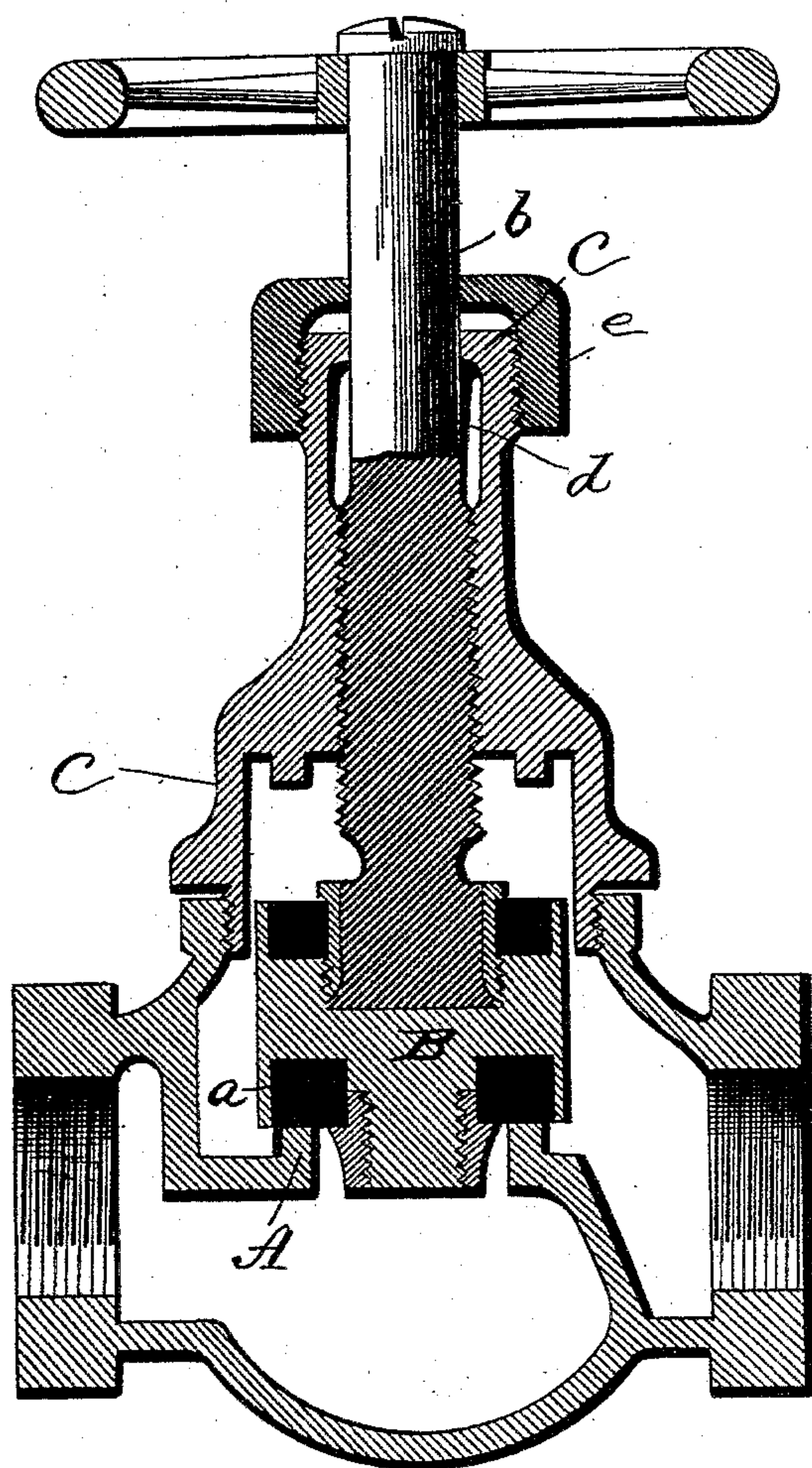


(No Model.)

S. F. COLLINS.
VALVE.

No. 411,856.

Patented Oct. 1, 1889.



Attest
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UNITED STATES PATENT OFFICE.

SAMUEL F. COLLINS, OF BINGHAMTON, NEW YORK.

VALVE.

SPECIFICATION forming part of Letters Patent No. 411,856, dated October 1, 1889.

Application filed February 14, 1889. Serial No. 299,821. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL F. COLLINS, of Binghamton, in the county of Broome and State of New York, have invented a new and useful Improvement in Valves; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention is an improvement in valves adapted specially for use in steam pipes and boilers, though it may be used with equally good effect in other situations where controlling-valves are necessary.

The invention consists in the details of construction hereinafter fully described.

In the accompanying drawing the figure represents a central vertical section of a globe-valve with its piston and operating-handle.

In the drawing the valve-seat is shown at A, and is provided with an annular ring, upon which is seated the composition ring *a* of the valve B. This valve B is provided with an annular groove in its upper and lower face, in which grooves packing-rings are inserted, the lower ring being held in place by an overhanging ledge on a collar 1, which is fitted to the screw-threaded projection 2 of the valve. The upper packing-ring is held in place by means of a ring 3, which is also provided with an overhanging lip, this ring being adapted to be screwed into an opening around the spindle *b* of the valve, the overhanging lip bearing upon the packing-ring. A spindle *b* is connected to the valve and passes up through a box C, which has a screw-threaded opening fitted to receive it, the outer periphery of the spindle being also screw-threaded, so as to make the action of the valve positive.

Above the screw-threaded part of the box C the ordinary enlarged opening is formed, as at *d*, and in this opening suitable packing may be provided. A screw-threaded cap *e*, with an opening in the center for the passage of the valve-stem, fits over the end of the box

C, and between the end of the box and the top of the nut *e* is a recess, in which packing may also be inserted. The upper end of the valve is also provided with a composition packing-ring or a ground seat, which is adapted to a corresponding seat on the under face of the box C, and when it is desired to renew the packing it is only necessary to open the valve to its widest extent until the upper part of the valve E is firmly seated against the under face of the box C, which thus forms a perfect seal between the chamber of the valve and the opening through the box C, and the cap *e* may then be removed and the packing replaced without any danger whatever of leakage.

What I claim is—

1. In combination, a valve having an annular channel and a screw-threaded central projection on its lower face, a packing-ring fitting the channel, and a collar provided with a ledge for holding said ring in place, a channel provided with a packing-ring in the upper face of the valve, a central socket for the end of the valve-spindle, and a ring having an overhanging holding-lip, substantially as described.

2. In a valve, an annular channel on its upper face provided with a packing-ring, a central socket for the end of the valve-spindle, and a ring having an overhanging lip to bear on the packing, said ring fitting around the valve-spindle and having screw-threads on its outer periphery engaging the screw-threads of the socket, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL F. COLLINS.

Witnesses:

NERI PINE,
EDWIN EVANS.